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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
1998 Biennial Regulatory Review —	)	ET Docket No. 98-42
	)	
Amendment of Part 18 of the	)	
Commission's Rules to Update	)	
Regulations For RF Lighting Devices	)	

COMMENTS OF THE WIRELESS LAN ALLIANCE

The Wireless LAN Alliance ("WLANA") was formed in March of 1996 in order to promote increased awareness of, and knowledge about the present and future capabilities of, wireless local area networks ("LANs"). Its members include the following major worldwide suppliers of wireless LAN components and systems:

- 3Com Corporation
- Advanced Micro Devices
- Aironet
- Bay Networks
- BreezeCom
- Cabletron Systems, Inc.
- Harris Semiconductor
- Intermec Technologies, Inc.
- Lucent Technologies
- Proxim, Inc.
- Symbol Technologies
- Raytheon Electronics

Due to its broad-based membership, WLANA is uniquely qualified to comment on issues affecting the deployment and use of unlicensed, Part 15 wireless LANs.

In the above-referenced Notice of Proposed Rulemaking ("NPRM"), the Commission proposed various changes to its Part 18 rules in order to accommodate the deployment of radio frequency ("RF") lighting devices. The NPRM, however, fails specifically to consider the impact its proposed rule changes would have on Part 15 wireless LANs operating in the 2.4 GHz unlicensed band or in other unlicensed spectrum. As a result, its proposals undermine the Commission's recent decision to

preserve the 2.4 GHz band for use by unlicensed devices. Moreover, they ignore the important role wireless LANs play in meeting the communications needs of businesses and educational institutions across the country, and jeopardize both existing investment in, and future opportunities to manufacture, export, and deploy, unlicensed wireless LANs.

DISCUSSION

Just two years ago, the Commission considered — and rejected — the possibility of re-allocating the 2.4 GHz unlicensed band to another use. As the Commission recognized, "Part 15 devices provide a variety of consumer and business oriented services that benefit individuals, commercial services, and private spectrum users, and they also have applications for public safety and medical needs..... [These devices] have the potential to benefit virtually every person and business in the nation, as well as to promote American competitiveness abroad."[1]

The Commission, moreover, has taken steps over the past several years to increase the spectrum available for unlicensed wireless devices, including wireless LANs. Some of this spectrum — in particular, the 2390-2400 MHz unlicensed PCS band — lies in the vicinity of the 2.4 GHz ISM band in which RF lighting devices would operate.

The Commission's efforts to protect and promote Part 15 operations have been beneficial for both manufacturers and end users. In particular, its decision to preserve Part 15 access to the 2.4 GHz band has led to increased development and deployment of 2.4 GHz devices domestically, and has prompted other countries also to authorize unlicensed operation in this band. This, in turn, has given manufacturers new export opportunities and expanded the market for unlicensed 2.4 GHz products, contributing to the development of even lower-cost, more robust, and more varied Part 15 technologies.

In the NPRM, however, the Commission raises the specter of microwave lighting use that could threaten its decision to preserve the 2.4 GHz band for unlicensed Part 15 operation. The characteristics of RF lighting devices — in particular, the fact that they often are operated outdoors and for extended periods of

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[1] *Allocation of Spectrum Below 5 GHz Transferred from Federal Government Use*, 10 FCC Rcd 4769, 4786 (1995).

time — mean that they will pose a risk of objectionable interference to communication systems, including wireless LANs operating in conformance with the Part 15 rules, unless they are subjected to reasonable emission limits.[2]

While Part 15 devices operate on an "at sufferance" basis, they support important communications needs and represent a uniquely flexible, low-cost alternative to licensed and wired technologies. Thus, while it may be appropriate to require them to accept interference from Part 18 devices, as the current rules do, it is not appropriate to permit the introduction of new and fundamentally more troublesome Part 18 devices without addressing the ability of these new devices to share spectrum responsibly. Such an approach gives too much priority to Part 18 devices, turns its back on the manufacturers and users who have invested in 2.4 GHz wireless LANs, unnecessarily undermines the opportunities for the future growth of this market, and represents poor spectrum management.

For the above reasons, WLANA urges the Commission to clarify its proposed out-of-band emission limits for RF lighting devices in order to protect communications users sharing the 2.4 GHz band.[3] In particular, it should require RF lighting devices to meet the same out-of-band emissions requirements that apply to Part 15 digital devices, including the limits on both average emission levels and peak envelope power. Moreover, the measurement procedures used to determine whether RF lighting devices comply with these limits should mirror the procedures used for Part 15 devices.

WLANA believes that the imposition of reasonable out-of-band limits will have the additional benefit of constraining in-band emissions of RF lighting devices and, thereby, help to preserve a hospitable operating environment for Part 15 devices sharing the 2.4 GHz band. The Commission should also require actual and potential manufacturers of RF lighting devices to address whether "quieter" in-band emissions reasonably can be achieved and to discuss what steps they can take to promote responsible spectrum use and protect communications devices from unnecessarily high Part 18 emissions.

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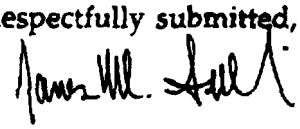
[2] See, e.g. *Amendment of Parts 2 and 15 of the Commission's Rules Regarding Spread Spectrum Transmitters*, 12 FCC Rcd 7488, 7494 (1997); see also NPRM at ¶ 13 (RF lighting devices can be expected to proliferate and possibly to include widespread outdoor lighting, such as street lighting, making their ability to share spectrum with communication devices more questionable).

[3] NPRM at ¶ 12. These limits would apply to radiated emissions above 1 GHz, which currently are not regulated. Id.

CONCLUSION

By imposing reasonable limits on the out-of-band emissions of RF lighting devices, the Commission will strike an appropriate balance between the interests of the Part 18 community, on the one hand, and the needs of wireless LAN manufacturers and users — as well as the public interest in responsible spectrum management and predictable regulatory policies — on the other. Accordingly, WLANA urges the Commission to modify its proposals for out-of-band emissions of RF lighting devices as discussed herein.

Respectfully submitted,



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